FIG. 1

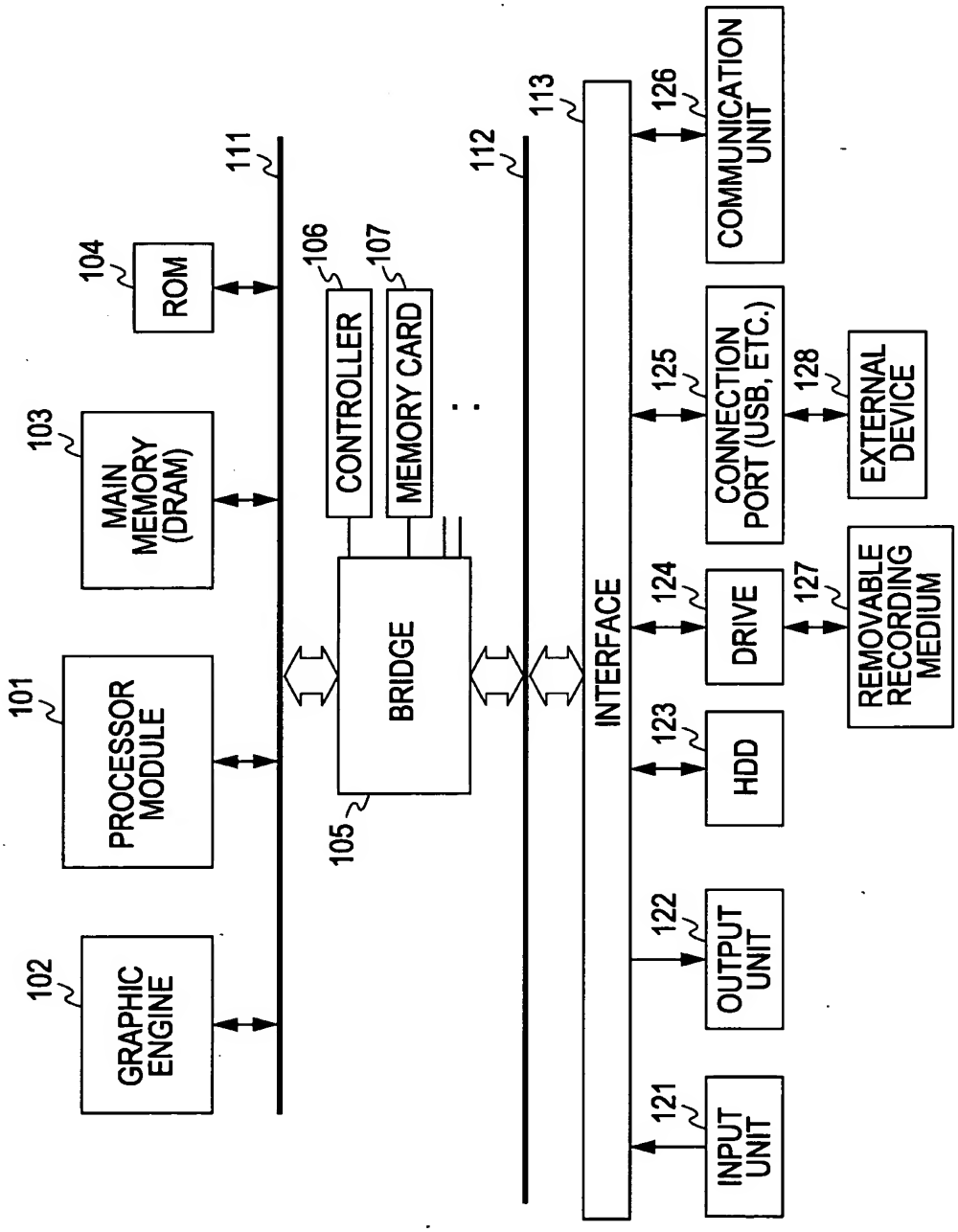
101
PROCESSOR MODULE
102
GRAPHIC ENGINE
103
MAIN MEMORY (DRAM)
104
ROM
105
BRIDGE
106
CONTROLLER
107
MEMORY CARD
111
112
113
INTERFACE
121
INPUT UNIT
122
OUTPUT UNIT
123
HDD
124
DRIVE
125
CONNECTION PORT (USB, ETC.)
126
COMMUNICATION UNIT
127
REMOVABLE RECORDING MEDIUM
128
EXTERNAL DEVICE

FIG. 2

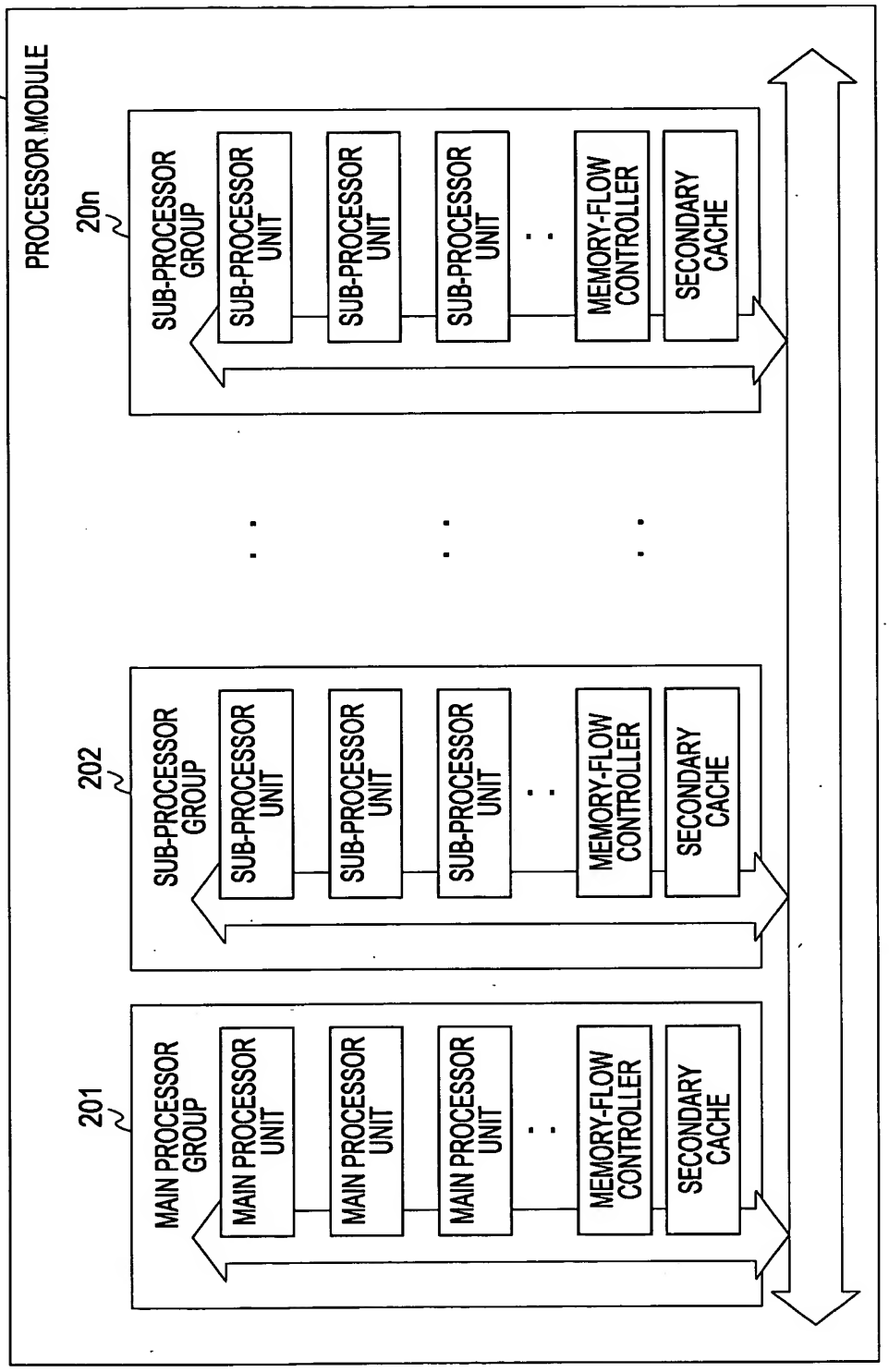
200
PROCESSOR MODULE
201
MAIN PROCESSOR GROUP
MAIN PROCESSOR UNIT
MAIN PROCESSOR UNIT
MAIN PROCESSOR UNIT
MEMORY-FLOW CONTROLLER
SECONDARY CACHE
202
SUB-PROCESSOR GROUP
SUB-PROCESSOR UNIT
SUB-PROCESSOR UNIT
SUB-PROCESSOR UNIT
MEMORY-FLOW CONTROLLER
SECONDARY CACHE
20n
SUB-PROCESSOR GROUP
SUB-PROCESSOR UNIT
SUB-PROCESSOR UNIT
SUB-PROCESSOR UNIT
MEMORY-FLOW CONTROLLER
SECONDARY CACHE

FIG. 3

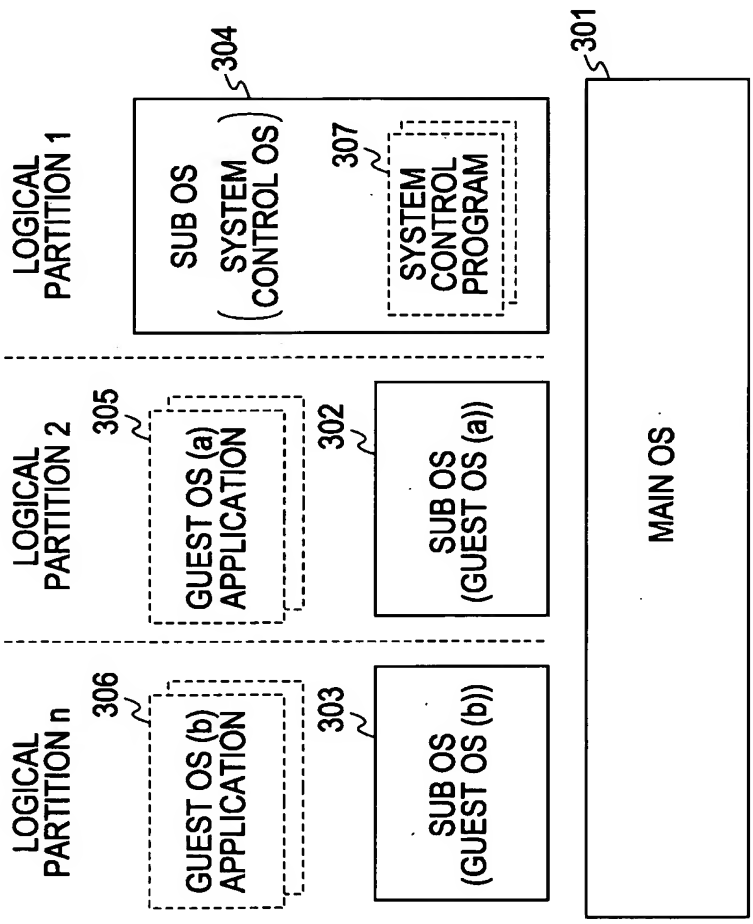
LOGICAL PARTITION 1
LOGICAL PARTITION 2
LOGICAL PARTITION n
SUB OS (SYSTEM CONTROL OS)
304
SYSTEM CONTROL PROGRAM
307
GUEST OS (a) APPLICATION
305
SUB OS (GUEST OS (a))
302
GUEST OS (b) APPLICATION
306
SUB OS (GUEST OS (b))
303
MAIN OS
301

FIG. 4

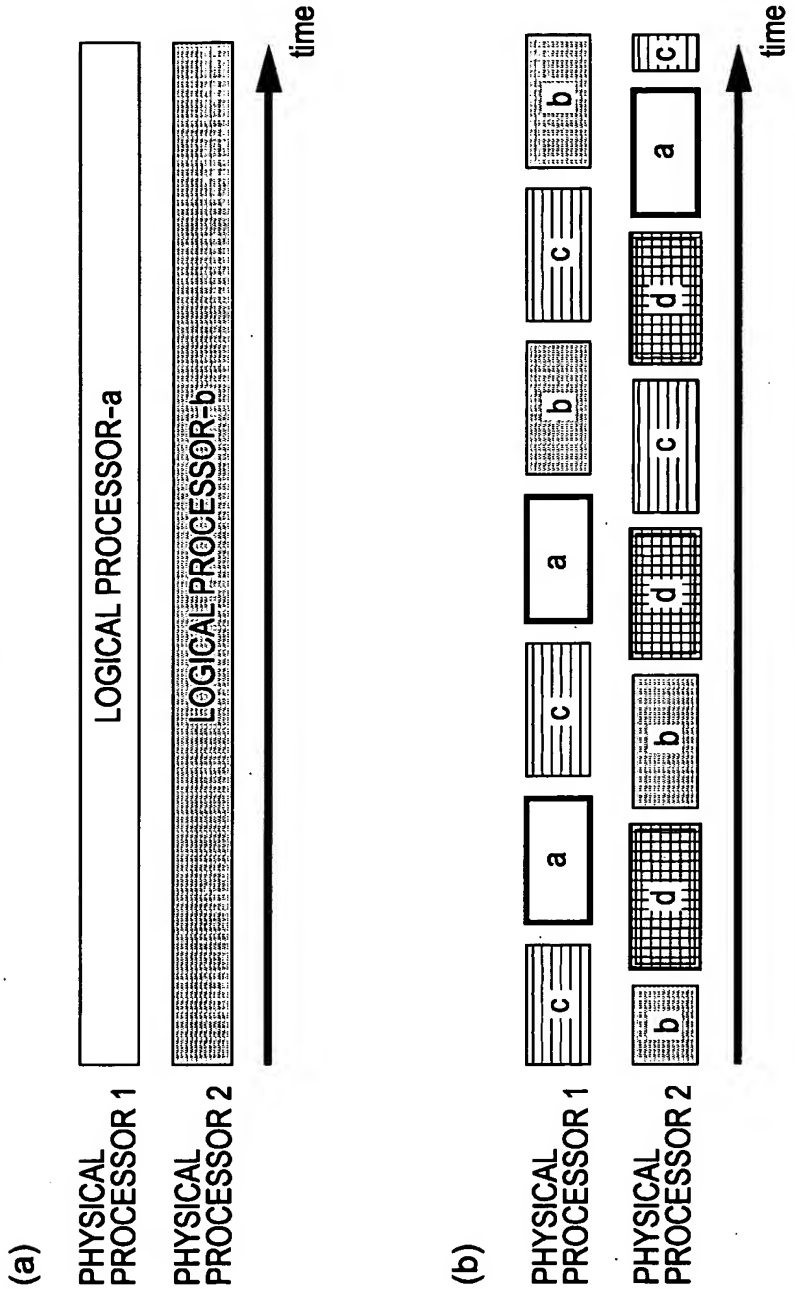
(a)
PHYSICAL PROCESSOR 1
PHYSICAL PROCESSOR 2
LOGICAL PROCESSOR-a
LOGICAL PROCESSOR-b
time
(b)
PHYSICAL PROCESSOR 1
PHYSICAL PROCESSOR 2
time

FIG. 5

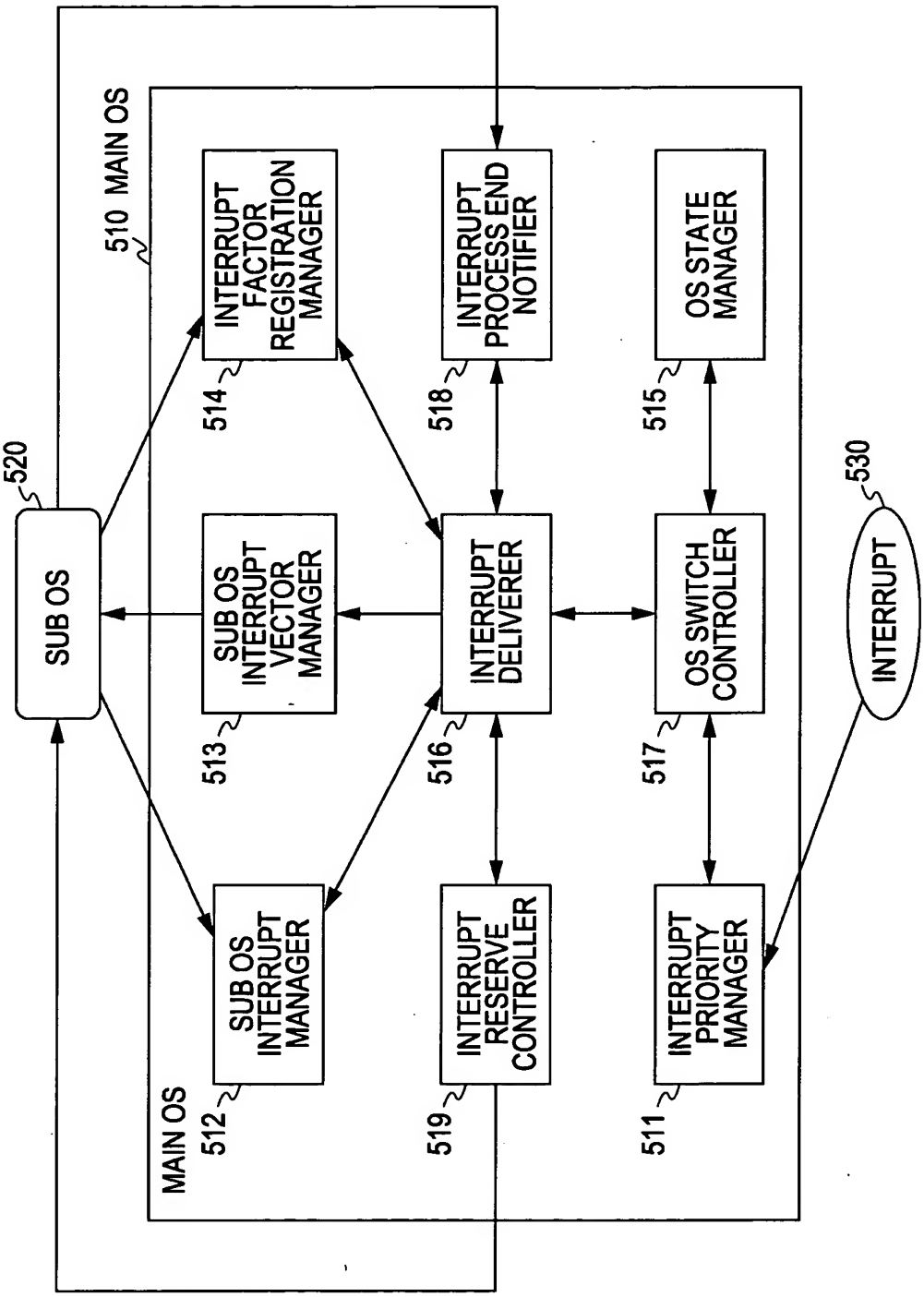
510 MAIN OS
INTERRUPT FACTOR REGISTRATION MANAGER
514
INTERRUPT PROCESS END NOTIFIER
518
OS STATE MANAGER
515
520
SUB OS
SUB OS INTERRUPT VECTOR MANAGER
513
INTERRUPT DELIVERER
516
OS SWITCH CONTROLLER
517
530
INTERRUPT
SUB OS INTERRUPT MANAGER
512
INTERRUPT RESERVE CONTROLLER
519
INTERRUPT PRIORITY MANAGER
511
MAIN OS

FIG. 6

OS TYPE	INTERRUPT ENABLED STATE OR INTERRUPT DISABLED STATE	RESERVE INTERRUPT	PROCESS INTERRUPT
MAIN OS	DISABLED	–	–
SUB OS-1	ENABLED	–	INTERRUPT e
SUB OS-2	DISABLED	INTERRUPT a INTERRUPT b	–
⋮	⋮	⋮	⋮
SUB OS-n	DISABLED	INTERRUPT c INTERRUPT d	–

FIG. 7

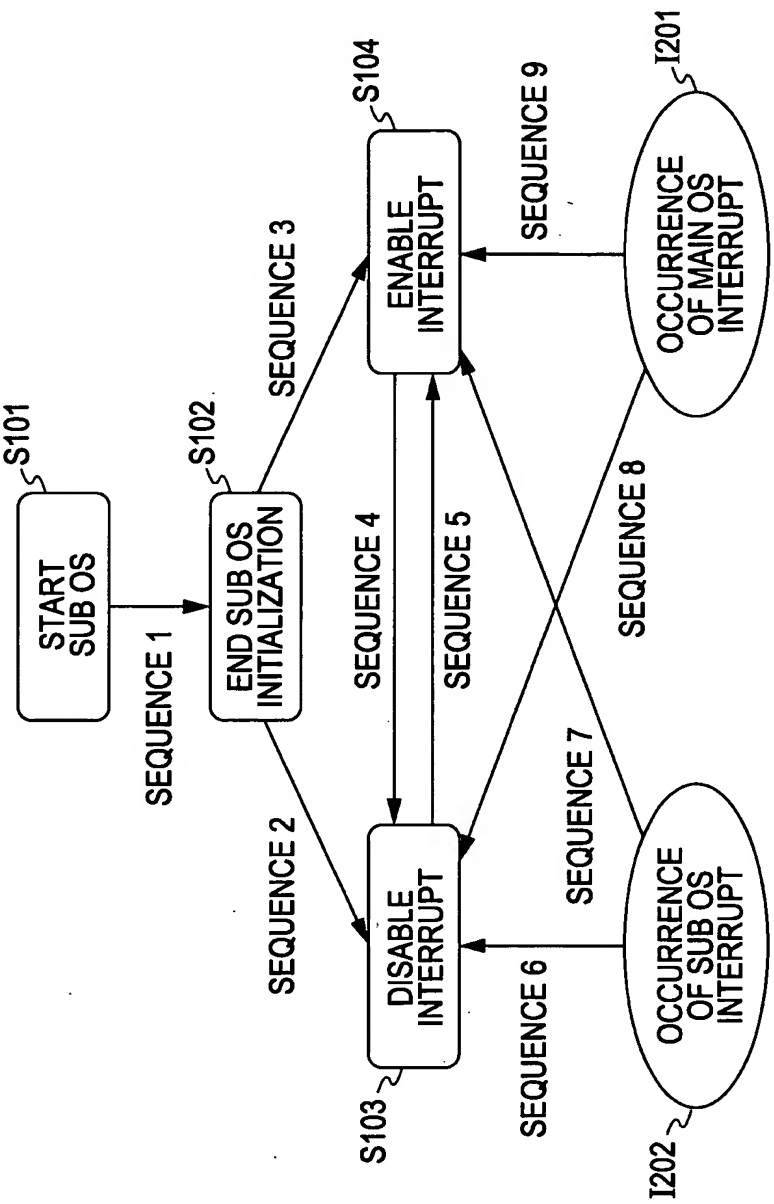
START SUB OS
S101
END SUB OS INITIALIZATION
S102
DISABLE INTERRUPT
S103
ENABLE INTERRUPT
S104
OCCURRENCE OF SUB OS INTERRUPT
I202
OCCURRENCE OF MAIN OS INTERRUPT
I201
SEQUENCE 1
SEQUENCE 2
SEQUENCE 3
SEQUENCE 4
SEQUENCE 5
SEQUENCE 6
SEQUENCE 7
SEQUENCE 8
SEQUENCE 9

FIG. 8

SCENARIO	OS IN OPERATION	INTERRUPT PRIORITY	INTERRUPT DESTINATION OS	INTERRUPT ENABLED/DISABLED STATE OF INTERRUPT DESTINATION OS
SCENARIO 01	SUB OS	LOW	MAIN OS	INTERRUPT ENABLED
SCENARIO 02	SUB OS	LOW	MAIN OS	INTERRUPT DISABLED
SCENARIO 03	SUB OS	LOW	SUB OS	INTERRUPT ENABLED
SCENARIO 04	SUB OS	LOW	SUB OS	INTERRUPT DISABLED
SCENARIO 05	SUB OS	HIGH	MAIN OS	INTERRUPT ENABLED
SCENARIO 06	SUB OS	HIGH	MAIN OS	INTERRUPT DISABLED
SCENARIO 07	SUB OS	HIGH	SUB OS	INTERRUPT ENABLED
SCENARIO 08	SUB OS	HIGH	SUB OS	INTERRUPT DISABLED
SCENARIO 09	MAIN OS	LOW	MAIN OS	INTERRUPT ENABLED
SCENARIO 10	MAIN OS	LOW	MAIN OS	INTERRUPT DISABLED
SCENARIO 11	MAIN OS	LOW	SUB OS	INTERRUPT ENABLED
SCENARIO 12	MAIN OS	LOW	SUB OS	INTERRUPT DISABLED
SCENARIO 13	MAIN OS	HIGH	MAIN OS	INTERRUPT ENABLED
SCENARIO 14	MAIN OS	HIGH	MAIN OS	INTERRUPT DISABLED
SCENARIO 15	MAIN OS	HIGH	SUB OS	INTERRUPT ENABLED
SCENARIO 16	MAIN OS	HIGH	SUB OS	INTERRUPT DISABLED